



ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

EPA Region 5 Records Ctr.



294016

EXECUTIVE SUMMARY

TO: Colleen Hart, U.S. EPA
FROM: Elizabeth Gamauf, FIT
DATE: August 19, 1991
SUBJECT: Commonwealth Edison, Hammond, Indiana
IND016364507/F05-9104-055/FIN0739PA

The Commonwealth Edison site is located at 103rd Street and Lake Michigan in Hammond, Indiana. The site is an active coal-burning power plant that supplies electricity to the city of Chicago. Lake Michigan borders the site on the east, and partially on the north and south sides. The site is bordered on the west by railroad tracks with spurs that lead onto the site. Access to the site is highly restricted. The site is surrounded by a fence, and a security guard is present.

Ecology and Environment, Inc., conducted an off-site reconnaissance inspection on June 4, 1991, and a large pile of fly ash was observed. According to the plant assistant manager, a Mr. Roach, all fly ash is transported to Chicago in railroad cars for disposal. He also stated that no fly ash has ever been treated on-site.

The site overlies a highly permeable subsurface with a high water table. Even though the fly ash is poorly contained, the possibility of groundwater contamination is slight because the site is paved.

There is a potential for the fly ash to migrate to surface water and fisheries primarily by air, and possibly by runoff. This could be a threat because the drinking water intake for Hammond is located approximately 1/2 mile downstream from the site. However, the probability of contamination is very low because the compounds and analytes generally present in fly ash (e.g., polyaromatic hydrocarbons, aluminum, calcium, iron, silicon) tend to be insoluble and cannot migrate in water. A

wetland is located approximately 1 mile from the site. However, because no direct overland migration pathway was observed, the probability of contamination is low.

There is a potential for overland runoff into Lake Michigan, which is adjacent to the site. This is a possibly threat because drinking water intakes for Hammond are located approximately 1/2 mile downstream from the site, and because Lake Michigan is used for recreational purposes. However, because the compounds and analytes present in fly ash tend to be insoluble and cannot migrate easily in water, the probability of contamination of any intakes or fisheries is slight.

Because the pile of fly ash is uncontained, there is a high potential for air contamination from the fly ash. The 2,800 employees are at major risk, because they are exposed to the contaminated air during work hours.



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International Specialists in the Environment

M E M O R A N D U M

TO: Colleen Hart, U.S. EPA
FROM: Elizabeth Gamauf, FIT
DATE: August 19, 1991
SUBJECT: Commonwealth Edison, Hammond, Indiana
IND016364507/F05-9104-055/FIN0739PA

On June 4, 1991, Ecology and Environment, Inc., Field Investigation Team (FIT) conducted an off-site reconnaissance inspection of the Commonwealth Edison site in Hammond, Indiana. A large, uncovered pile of fly ash was observed. Because the fly ash was not covered, there is a high potential for TCL compounds and TAL analytes to become windblown and to affect nearby residents. The 2,800 employees on-site could also be affected.

FIT recommends that the Commonwealth Edison site proceed to the screening site inspection level with medium priority because of the large population that could be exposed to windblown fly ash particulate. Air monitoring should be conducted to determine the extent of airborne fly ash particulate.

7218:9

PA Scoresheets

DRAFT

NOV 06 1990

CERCLA IDENTIFICATION NUMBER

STATE

SITE NUMBER

IN

INDC 16264507

SITE LOCATION

SITE NAME: Legal, common or descriptive name of site

Commonwealth Edison

STREET ADDRESS, ROUTE or SPECIFIC LOCATION IDENTIFIER

103rd and Lake Michigan

CITY

Hammond

STATE

IN

ZIP CODE

46320

TELEPHONE

219/459-0036

COORDINATES: LATITUDE and LONGITUDE

41°42'22.0" (Lat) 87°51'25.0" (Long)

TOWNSHIP, RANGE, and SECTION

T38N, R10W, Sec. 36

OWNER/OPERATOR IDENTIFICATION

OWNER

Commonwealth Edison

OPERATOR

See site name, location

OWNER ADDRESS

1 First National Plaza

OPERATOR ADDRESS

CITY

Chicago

CITY

STATE

IL

ZIP CODE

60603

TELEPHONE

(312) 394-4321

STATE

ZIP CODE

TELEPHONE

()

TYPE OF OWNERSHIP

- ☒ PRIVATE
☐ FEDERAL: Agency name _____
☐ STATE
☐ COUNTY
☐ MUNICIPAL
☐ OTHER: _____
☐ NOT SPECIFIED

OWNER/OPERATOR NOTIFICATION ON FILE

- ☒ NONE
☐ CERCLA 103 C, UNCONTROLLED WASTE SITE
DATE: _____
☐ RCRA 3001
DATE: _____

SITE STATUS

- ☒ ACTIVE
☐ INACTIVE
☐ UNKNOWN

YEARS OF OPERATION

BEGINNING YEAR: _____
ENDING YEAR: _____
☒ UNKNOWN

APPROXIMATE SIZE OF SITE

Unknown

SITE EVALUATION

AGENCY / ORGANIZATION

Ecology and Environment Inc.

INVESTIGATOR

Elizabeth Gornoff

CONTACT

Harry H. Kinison 7.07.91/051111 (312) 232-8907

ADDRESS

111 W Jackson Blvd. 12th fl, Chicago IL

TELEPHONE

(312) 663-9415

DATE

Site drive by: 6-4-91

Site sound on 17 July 91

NOV 06 1990

GENERAL INFORMATION

Site Description and Operational History:

Hammond's Energy System is a coal burning power plant supply of the city of Chicago with electricity. The site appears to be clean and well run. According to the assistant plant manager, Mr. Beach, all fly ash is sent off site in rail cars to Chicago for disposal. No ash has ever been tested on site.

Other hazardous wastes generated on the site are transported and/or disposed of by contracted companies.

The accessibility of the site is highly restricted, the area is surrounded by a fence, along with an on duty security guard.

Hammond's surface water intake is approximately 10 mile from the site.

The years in operation are unknown.

Reference 6

Probable Contaminants of Concern:

(Previous investigations; analytical data)

Waste corrosive liquid, lvs.

Waste poisonous solid, corrosive, lvs.

These wastes can be possible threats during the time between transportation pickups.

The most probable contaminant of concern is the uncontained pile of fly ash on site. In general TCL compounds present in fly ash are polycyclic aromatic hydrocarbons. The analytes present in fly ash are chlorinated compounds, a dioxin, polycyclic aromatic hydrocarbons. Other analytical parameters are unknown. Reference 6, 8, 10, 21

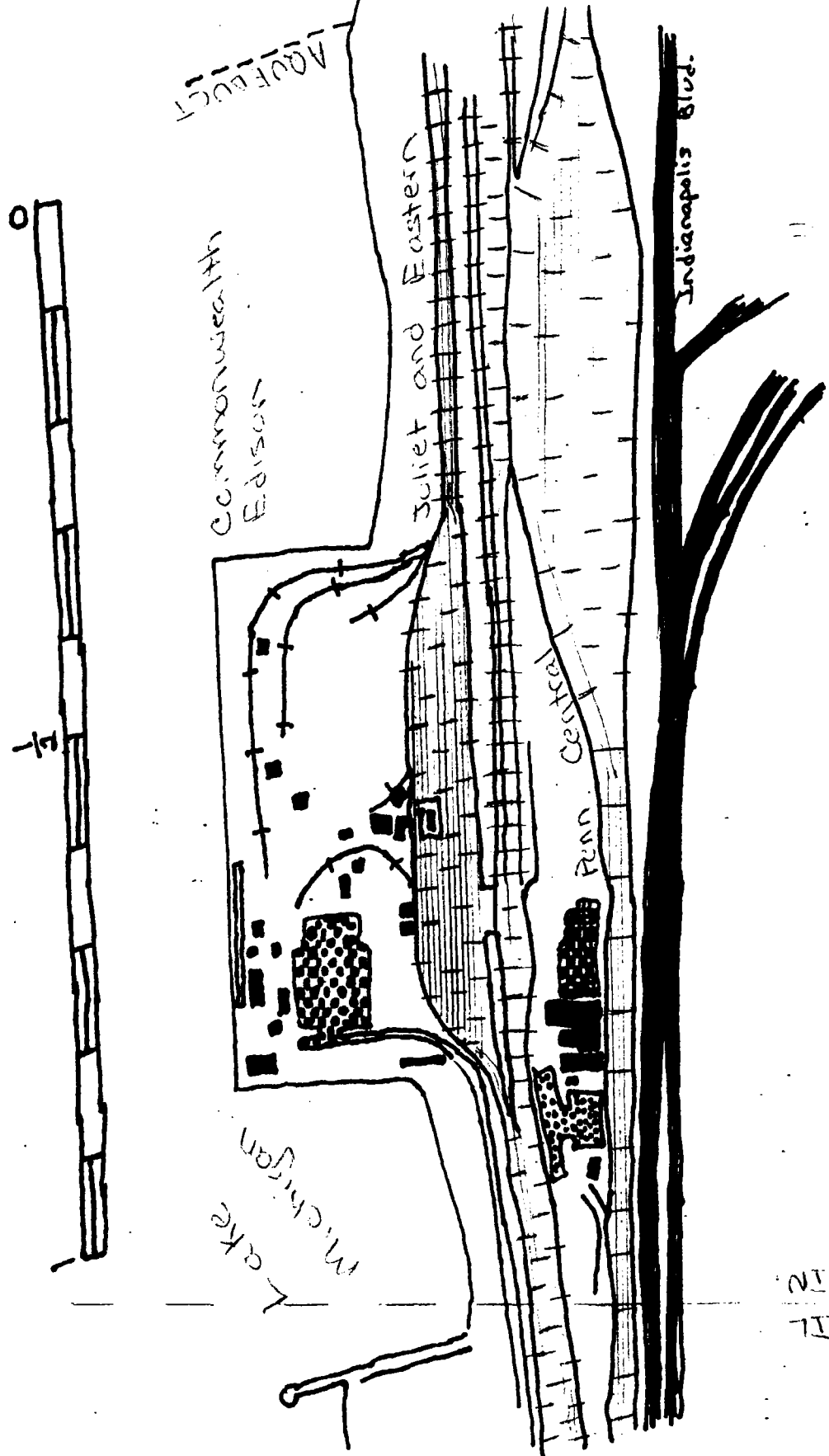
NOV 06 1990

GENERAL INFORMATION (continued)

date: Commonwealth
Edison
17 July, 91

Site Sketch:

(Show all pertinent features; indicate sources and closest targets)



Date:

NOV 06 1990

GENERAL INFORMATION (continued)

Source Descriptions:

As of 6-7-91 there was 1 large pile of fly ash.
There were no tanks or drums observed.

reference 6.

Waste Characteristics (WC) Calculations:

(See PA Table 1, page 5)

Tier: AEC

Source type: pile

Single source:

>1,000 to 130,000 ft³

>0.021 to 2.9 acres

= WC = 32

reference 6.

WC =

32

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PA TABLE 1: WASTE CHARACTERISTICS (WC) SCORES

PA Table 1a: WC Scores for Single Source Sites and Formulas for Multiple Source Sites

TIER	SOURCE TYPE	SINGLE SOURCE SITES (assigned WC scores)			MULTIPLE SOURCE SITES
		WC = 18	WC = 32	WC = 100	
CONSTITUENT	N/A	≤ 100 lbs	> 100 to 10,000 lbs	> 10,000 lbs	lbs + 1
WASTEWATER	N/A	≤ 500,000 lbs	> 500,000 to 50 million lbs	> 50 million lbs	lbs + 5,000
VOLUME	Landfill	≤ 6.75 million ft ³ ≤ 250,000 yd ³	> 6.75 million ft ³ to 675 million ft ³ > 250,000 to 25 million yd ³	> 675 million ft ³ > 25 million yd ³	ft ³ + 67,500 yd ³ + 2,500
	Surface impoundment	≤ 6,750 ft ³ ≤ 250 yd ³	> 6,750 ft ³ to 675,000 ft ³ > 250 to 25,000 yd ³	> 675,000 ft ³ > 25,000 yd ³	ft ³ + 67.5 yd ³ + 2.5
	Drums	≤ 1,000 drums	> 1,000 to 100,000 drums	> 100,000 drums	drums + 10
	Tanks and non-drum containers	≤ 50,000 gallons	> 50,000 to 5 million gallons	> 5 million gallons	gallons + 500
	Contaminated soil	≤ 6.75 million ft ³ ≤ 250,000 yd ³	> 6.75 million ft ³ to 675 million ft ³ > 250,000 to 25 million yd ³	> 675 million ft ³ > 25 million yd ³	ft ³ + 67,500 yd ³ + 2,500
AREA	Pile	≤ 6,750 ft ² ≤ 250 yd ²	> 6,750 ft ² to 675,000 ft ² > 250 to 25,000 yd ²	> 675,000 ft ² > 25,000 yd ²	ft ² + 67.5 yd ² + 2.5
	Landfill	≤ 340,000 ft ² ≤ 7.8 acres	> 340,000 to 34 million ft ² > 7.8 to 780 acres	> 34 million ft ² > 780 acres	ft ² + 3,400 acres + 0.078
	Surface impoundment	≤ 1,300 ft ² ≤ 0.029 acres	> 1,300 to 130,000 ft ² > 0.029 to 2.9 acres	> 130,000 ft ² > 2.9 acres	ft ² + 13 acres + 0.00029
	Contaminated soil	≤ 3.4 million ft ² ≤ 78 acres	> 3.4 million to 340 million ft ² > 78 to 7,800 acres	> 340 million ft ² > 7,800 acres	ft ² + 34,000 acres + 0.78
	Pile	≤ 1,300 ft ² ≤ 0.029 acres	> 1,300 to 130,000 ft ² > 0.029 to 2.9 acres	> 130,000 ft ² > 2.9 acres	ft ² + 13 acres + 0.00029
AREA	Land treatment	≤ 27,000 ft ² ≤ 0.62 acres	> 27,000 to 2.7 million ft ² > 0.62 to 62 acres	> 2.7 million ft ² > 62 acres	ft ² + 270 acres + 0.0062

1 ton = 2,000 lbs = 1 yd³ = 4 drums = 200 gallons

* Use area of land surface under pile, not surface area of pile.

PA Table 1b: WC Scores for Multiple Source Sites

WQ Total	WC Score
> 0 to 100	18
> 100 to 10,000	32
> 10,000	100

Table 1b
WC not used
see 304.91

NOV. 06 1990

GROUND WATER PATHWAY
GROUND WATER USE DESCRIPTION

Describe Ground Water Use Within 4-miles of the Site:

(Provide generalized stratigraphy; information on aquifers, municipal, and or private wells)

The northern shore of Lake Michigan is situated in the Central Lakestrine Plain. This drift consists of between 40-175 ft. of Wisconsin Glacilacustrine sand and gravel in the form of long-teraced dunes, bars, and beach ridges. The soil in this area is in the Oakville-Tawas Association which consists of fine to medium sand with scattered deposits of organically rich loess silt deposits.

The potential for ground water contamination is high for both the upper and lower aquifers due to the high permeability of the subsurface which along with the heavy precipitation causes the strong downward component to the area groundwater which could cause downward migration of contaminants to the lower aquifer before lateral movement occurs.

Lake Michigan is used for all drinking water within 4 miles of the Commodore H. Edison Site.

reference 1, 3, 4, 7, 10, 14, 18, 22, 9

Show calculations of ground water drinking water populations:

Ground water is not used for drinking water populations; all residents use Lake Michigan as their source for drinking water.

reference 1, 3, 4, 9, 14

Site Name: Campground, 11/18

Check the boxes to indicate a "yes", "no", or "unknown" answer to each question. If you check the "Suspected Release" box as "yes", make sure that you assign a Likelihood of Release value of 550 for the pathway.

GROUND WATER PATHWAY			
SUSPECTED RELEASE			PRIMARY TARGETS
Y • •	N • •	UNKNOWN • • •	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are sources poorly contained?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is waste quantity particularly large?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is precipitation heavy and infiltration rate high?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the site located in an area of karst terrain?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the subsurface highly permeable or conductive?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is drinking water drawn from a shallow aquifer?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are suspected contaminants highly mobile in ground water?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does any circumstantial evidence of ground water or drinking water contamination exist?
<input type="checkbox"/>	<input checked="" type="checkbox"/>		Other criteria? _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>		SUSPECTED RELEASE?
Y • •	N • •	UNKNOWN • • •	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is any drinking-water well nearby?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is any nearby drinking-water well closed?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Has foul-tasting or foul-smelling water been reported by any nearby drinking-water users?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Do any nearby wells have a large drawdown or high production rate?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are drinking-water wells located between the site and other wells that are suspected to be exposed to hazardous substances?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does any circumstantial evidence of ground water or drinking water contamination exist?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does any drinking-water well warrant sampling?
<input type="checkbox"/>	<input checked="" type="checkbox"/>		Other criteria? _____
<input type="checkbox"/>	<input checked="" type="checkbox"/>		PRIMARY TARGET(S) IDENTIFIED?

Summarize the rationale for suspected release (attach an additional page if necessary):

The trash is not contained in any way. The aquifer is approximately 10 feet below ground and with the high permeability of the subsurface contamination is possible.

6.18

Summarize the rationale for Primary Targets (attach an additional page if necessary):

There are no primary targets because the drinking water is taken from Lake Michigan.

1,3,9

NOV 06 1990

GROUND WATER PATHWAY SCORESHEET

02-11-1990 11:11 PA 12-11-1990 11:11

Pathway Characteristics	
Do you suspect a release (see Ground Water Pathway Criteria List, page 7)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Is the site located in karst terrain?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Depth to aquifer:	~ 10 ft
Distance to the nearest drinking-water well:	7.4 miles

LIKELIHOOD OF RELEASE

A	B
Suspected Release	No Suspected Release
550	340
550	340
LR = 550	

References

1. SUSPECTED RELEASE: If you suspect a release to ground water (see page 7), assign a score of 550, and use only column A for this pathway.
2. NO SUSPECTED RELEASE: If you do not suspect a release to ground water, and the site is in karst terrain or the depth to aquifer is 70 feet or less, assign a score of 500; otherwise, assign a score of 340. Use only column B for this pathway.

6, 14

TARGETS

3. PRIMARY TARGET POPULATION: Determine the number of people served by drinking water from wells that you suspect have been exposed to hazardous substances from the site (see Ground Water Pathway Criteria List, page 7). 0 people x 10 =	0	340
4. SECONDARY TARGET POPULATION: Determine the number of people served by drinking water from wells that you do NOT suspect have been exposed to hazardous substances from the site, and assign the total population score from PA Table 2. Are any wells part of a blended system? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, attach a page to show apportionment calculations.	0	340
5. NEAREST WELL: If you have identified any Primary Targets for ground water, assign a score of 50; otherwise, assign the highest Nearest Well score from PA Table 2. If no drinking-water wells exist within 4 miles, assign a score of zero.	0	340
6. WELLHEAD PROTECTION AREA (WHPA): Assign a score of 20 if any portion of a designated WHPA is within 1/4 mile of the site; assign 5 if from 1/4 to 4 miles.	0	340
7. RESOURCES: A score of 5 is assigned.	5	5
T =	5	

1, 3, 9

1, 3, 9

WASTE CHARACTERISTICS

8. A. If you have identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	32	32
B. If you have NOT identified any Primary Targets for ground water, assign the waste characteristics score calculated on page 4.	32	32
WC =	32	

GROUND WATER PATHWAY SCORE:

LR x T x WC

82,500

Subject to a maximum of 1000

1.07

Site Name:
 Date:

PA TABLE 2: VALUES FOR SECONDARY GROUND WATER TARGET POPULATIONS

PA Table 2a: Non-Karst Aquifers

Distance from Site	Population	Nearest Well (choose the closest)	Population Served by Well Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	
0 to 1/4 mile	—	20	1	2	5	16	52	163	521	1,633	5,214	16,325	—
> 1/4 to 1/2 mile	—	18	1	1	3	10	32	101	323	1,012	3,233	10,121	—
> 1/2 to 1 mile	—	9	1	1	2	5	17	52	167	522	1,668	5,224	—
> 1 to 2 miles	—	5	1	1	1	3	9	29	94	294	939	2,938	—
> 2 to 3 miles	—	3	1	1	1	2	7	21	68	212	678	2,122	—
> 3 to 4 miles	—	2	1	1	1	1	4	13	42	131	417	1,306	—
Nearest Well =			Score =										

PA Table 2b: Karst Aquifers

Distance from Site	Population	Nearest Well (use 20 for karst)	Population Served by Well Within Distance Category										Population Value
			1 to 10	11 to 30	31 to 100	101 to 300	301 to 1,000	1,001 to 3,000	3,001 to 10,000	10,001 to 30,000	30,001 to 100,000	100,001 to 300,000	
0 to 1/4 mile	—	20	1	2	5	16	52	163	521	1,633	5,214	16,325	—
> 1/4 to 1/2 mile	—	20	1	1	3	10	32	101	323	1,012	3,233	10,121	—
> 1/2 to 1 mile	—	20	1	1	3	8	26	82	261	816	2,607	8,162	—
> 1 to 2 miles	—	20	1	1	3	8	26	82	261	816	2,607	8,162	—
> 2 to 3 miles	—	20	1	1	3	8	26	82	261	816	2,607	8,162	—
> 3 to 4 miles	—	20	1	1	3	8	26	82	261	816	2,607	8,162	—
Nearest Well =			Score =										

Table 2a & 2b do not need for scoring

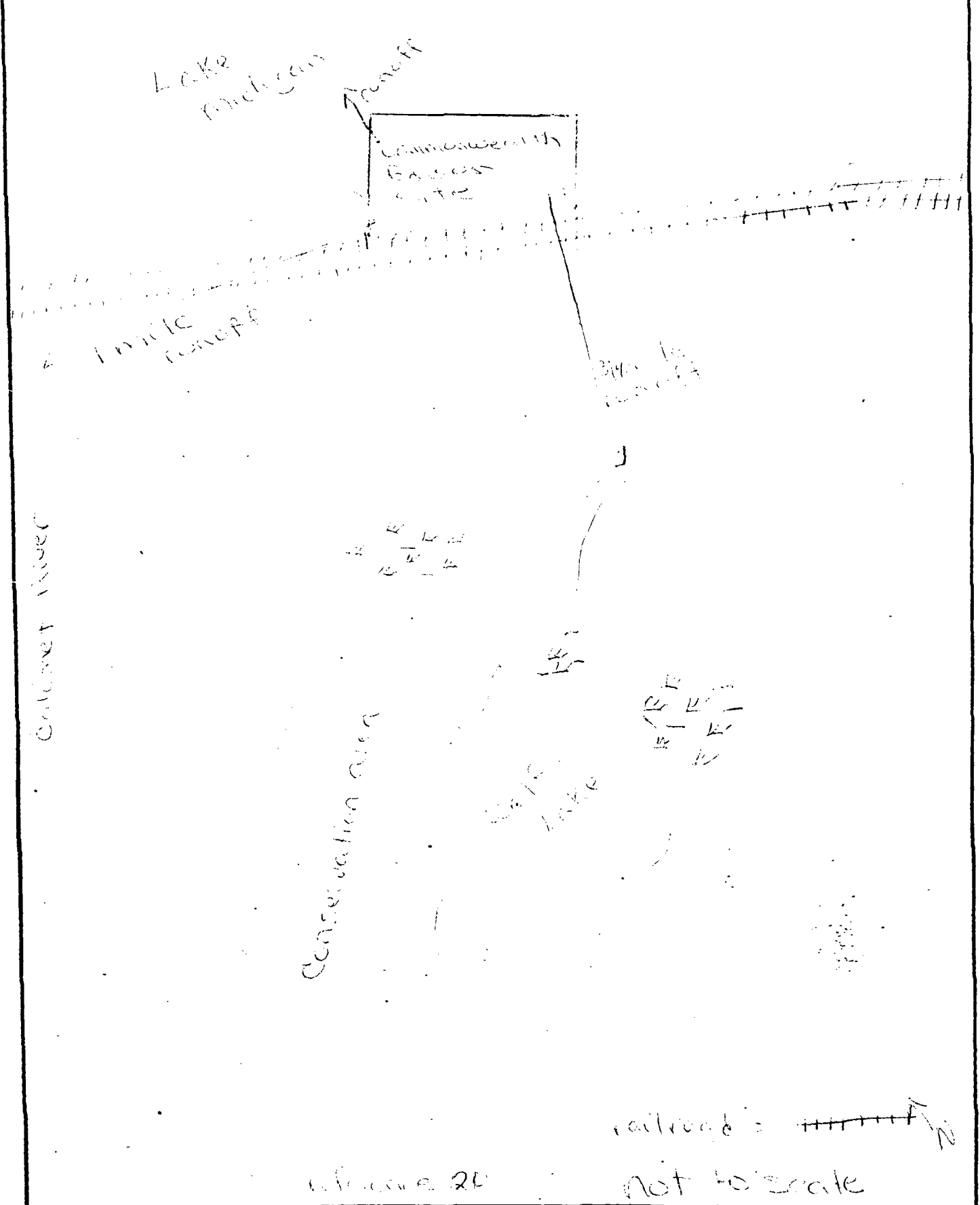
DATE: 11/08/90
BY: [illegible]

NOV 08 1990

**SURFACE WATER PATHWAY
MIGRATION ROUTE SKETCH**

Provide a Sketch of the Surface Water Migration Route:

(include runoff route, probable point of entry, 15-mile target distance limit, intakes, fisheries, and sensitive environments)



This chart provides guidelines to assist you in hypothesizing the presence of a suspected release and identifying primary targets. It is expected that not all of this information will be available during the PA. Also, these criteria are not all-inclusive; list any other criteria you use to hypothesize a suspected release or to identify primary targets. This chart will record your professional judgment in evaluating these factors.

The "Suspected Release" section of the chart guides you through evaluation of some site, source, and pathway conditions to help hypothesize whether a release from the site is likely. If a release is suspected, use the "Primary Targets" section to guide you through evaluation of some conditions that will help identify targets likely to be exposed to hazardous substances. You may use this section of the chart more than once, depending on the number of targets you feel may be considered "primary." In the "Primary Targets" section on this sheet, record the responses for the target that you feel has the highest probability of being exposed to hazardous substances.

Check the boxes to indicate a "yes", "no", or "unknown" answer to each question. If you check the "Suspected Release" box as "yes", make sure that you assign a Likelihood of Release value of 550 for the pathway.

SURFACE WATER PATHWAY					
SUSPECTED RELEASE			PRIMARY TARGETS		
Y	N	U	Y	N	U
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is surface water nearby?			Is any target nearby? If yes:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Drinking water intake		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Fishery		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Sensitive environment		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is precipitation heavy or infiltration rate low?		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are sources poorly contained or prone to runoff or flooding?		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a runoff route well defined (e.g., ditch or channel leading to surface water)?			Has an intake, fishery, or recreational area been closed?		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is vegetation stressed along the probable runoff path?			Is there any circumstantial evidence of surface water contamination at or downstream of a target?		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are suspected contaminants highly persistent in surface water?			Does any target warrant sampling? If yes:		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Drinking water intake		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Fishery		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Sensitive environment		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other criteria? _____		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is wildlife unnaturally absent?			PRIMARY INTAKE(S) IDENTIFIED?		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRIMARY FISHERY IDENTIFIED?		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED?		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other criteria? _____		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SUSPECTED RELEASE?		

Summarize the rationale for suspected release (attach an additional page if necessary):

A suspected release rationale is based on the fact that Lake Michigan is directly adjacent to the site.

reference 6, 10

Summarize the rationale for Primary Targets (attach an additional page if necessary):

It is possible that Lake Michigan could be a primary surface water and fishery target since the lake is directly adjacent to the site and (cont.)

Cambridge
Edison
11 July 91

Hammonds intakes are approximately a 1/2 mile away, also boat fishing occurs regularly on the lake. But since the compounds and analytes present in fly ash tend to be insoluble and can not migrate easily in water the probability of contamination of any intakes and fishery is very little.

reference 6,16,21

NOV 06 1990

SURFACE WATER PATHWAY LIKELIHOOD OF RELEASE AND DRINKING WATER THREAT SCORESHEET

Pathway Characteristics	
Do you suspect a release (see Surface Water Pathway Criteria List, page 11)?	Yes <u>X</u> No <u> </u>
Distance to surface water:	<u>adjacent</u>
Flood Frequency:	<u>2500</u> yrs
What is the downstream distance to the nearest drinking-water intake?	<u>1/2</u> miles
nearest fishery? <u>adjacent</u> miles	nearest sensitive environment? <u>1</u> miles

LIKELIHOOD OF RELEASE

- SUSPECTED RELEASE:** If you suspect a release to surface water (see page 11), assign a score of 550, and use only column A for this pathway.
- NO SUSPECTED RELEASE:** If you do not suspect a release to surface water, and the distance to surface water is 2,500 feet or less, assign a score of 500; otherwise, assign a score from the table below. Use only column B for this pathway.

Floodplain	Score
Site in annual or 10-yr floodplain	500
Site in 100-yr floodplain	400
Site in 500-yr floodplain	300
Site outside 500-yr floodplain	100

A Suspected Release	B No Suspected Release
550	500, 400, 300 or 100
550	500, 400, 300 or 100

References

1, 18

LR =

DRINKING WATER THREAT TARGETS

- Determine the water body types, flows (if applicable), and number of people served by all drinking-water intakes within the 15-mile target distance limit. If there are no drinking-water intakes within the target distance limit, assign a total Targets score of 5 at the bottom of this page (Resources only) and proceed to page 14.

Intake Name	Water Body Type	Flow	People Served
<u>South Chicago</u>	<u>Great Lake</u>	<u>N/A</u>	<u>cts 2.8 million</u>
<u>Hammond intakes</u>	<u>Great Lake</u>	<u>N/A</u>	<u>cts 100,000</u>
<u>Whiting intakes</u>	<u>Great Lake</u>	<u>N/A</u>	<u>cts 2,000</u>

- PRIMARY TARGET POPULATION:** If you suspect any drinking-water intake listed above has been exposed to hazardous substances from the site (see Surface Water Pathway Criteria List, page 11), list the intake name(s) and calculate the factor score based on the number of people served.

_____ people x 10 =

- SECONDARY TARGET POPULATION:** Determine the Secondary Target Population score from PA Table 3 based on the populations using drinking-water from intakes that you do NOT suspect have been exposed to hazardous substances from the site.

Are any intakes part of a blended system? Yes No X
 If yes, attach a page to show apportionment calculations.

- NEAREST INTAKE:** If you have identified any Primary Targets for the drinking water threat (Factor 4), assign a score of 50; otherwise, assign the Nearest Intake score from PA Table 3. If no drinking-water intake exists within the 15-mile target distance limit, assign a score of zero.

- RESOURCES:** A score of 5 is assigned.

T =

5	5
16	5
0	5
5	5
21	5

1, 2, 11, 12, 13, 1516, 212020

Site Name: Quincy
Date: 03/29/99

PA TABLE 3: VALUES FOR SECONDARY SURFACE WATER TARGET POPULATIONS

Surface Water Body Flow Characteristics (see PA Table 4)	Population	Nearest Intake (choose highest)	Population Served by Intakes Within Flow Category												Population Value										
			1 to 30		31 to 100		101 to 300		301 to 1,000		1,001 to 3,000		3,001 to 10,000			10,001 to 30,000		30,001 to 100,000		100,001 to 300,000		300,001 to 1,000,000		1,000,001 to 3,000,000	
			1	10	30	1	10	30	1	10	30	1	10	30		1	10	30	1	10	30	1	10	30	1
< 10 cfs	_____	20	2	5	16	52	163	521	1,633	5,214	16,325	52,136	163,246	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
10 to 100 cfs	_____	2	1	1	2	5	16	52	163	521	1,633	5,214	16,325	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
> 100 to 1,000 cfs	_____	1	0	0	1	1	2	5	16	52	163	521	1,633	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
> 1,000 to 10,000 cfs	_____	0	0	0	0	0	1	1	2	5	16	52	163	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
> 10,000 cfs or Great Lakes	51,009,741	0	0	0	0	0	0	0	1	1	2	5	16	163	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
3-mile Mixing Zone	_____	10	1	3	8	26	82	261	816	2,607	8,162	26,088	81,663	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Nearest Intake =		0	Score =																					16	

PA TABLE 4: SURFACE WATER TYPE / FLOW CHARACTERISTICS
WITH DILUTION WEIGHTS FOR SECONDARY SURFACE WATER SENSITIVE ENVIRONMENTS

Water Body Type	Type of Surface Water Body OR Flow Characteristics	Dilution Weight
minimal stream	flow less than 10 cfs	1
small to moderate stream	flow 10 to 100 cfs	0.1
moderate to large stream	flow greater than 100 to 1,000 cfs	N/A
large stream to river	flow greater than 1,000 to 10,000 cfs	N/A
large river	flow greater than 10,000 cfs	N/A
3-mile mixing zone of quiet flowing streams or rivers	flow 10 cfs or greater	N/A
coastal tidal water (harbors, sounds, bays, etc.), ocean, Great Lakes	N/A	N/A

NOV 06 1990

SURFACE WATER PATHWAY (continued)
HUMAN FOOD CHAIN THREAT SCORESHEET

A

B

LIKELIHOOD OF RELEASE

Suspected
ReleaseNo Suspected
Release

References

Enter the Surface Water Likelihood of Release score from page 12.

LR =

550

(500, 600, 300 = 1400)

6, 18.

HUMAN FOOD CHAIN THREAT TARGETS

8. Determine the water body types and flows (if applicable) for all fisheries within the 15-mile target distance limit. If there are no fisheries within the target distance limit, assign a Targets score of 0 at the bottom of this page and proceed to page 15.

Fishery Name	Water Body Type	Flow
Lake Michigan	Great Lake	10/14 cfs
Cabernet River	river	cfs
Lake Cabernet		10/14 cfs
Lake George		10/14 cfs
Wolf Lake		10/14 cfs

9. PRIMARY FISHERIES: If you suspect any fishery listed above has been exposed to hazardous substances from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 10. List the Primary Fisheries:

10. SECONDARY FISHERIES: If you have not identified any Primary Fisheries, assign a Secondary Fisheries score from the table below using the LOWEST flow at any fishery within the 15-mile target distance limit.

Lowest Flow	Secondary Fisheries Score
< 10 cfs	210
10 to 100 cfs	30
> 100 cfs, coastal tidal waters, oceans, or Great Lakes	12

T =

12

(210, 30, 12 = 0)

(210, 30, 12 = 0)

27

16, 21

20

NOV 06 1990

SURFACE WATER PATHWAY (continued)
ENVIRONMENTAL THREAT SCORESHEET

Date: 11/11/90
11/11/90

LIKELIHOOD OF RELEASE

Enter the Surface Water Likelihood of Release score from page 12.

LR =

A	B
Suspected Release	No Suspected Release
1500	1500, 400, 300 = 1000
550	

References

6, 18

ENVIRONMENTAL THREAT TARGETS

11. Determine the water body types and flows (if applicable) for all surface water sensitive environments within the 15-mile target distance limit (see PA Tables 4 and 5). If there are no sensitive environments within the 15-mile target distance limit, assign a Targets score of 0 at the bottom of this page, and proceed to page 17.

Environment Name	Water Body Type	Flow
Wetlands in Eggs Woods	N/A	cfs
Wetlands around millflake	N/A	cfs
		cfs
		cfs
		cfs

12. PRIMARY SENSITIVE ENVIRONMENTS: If you suspect any sensitive environment listed above has been exposed to hazardous substances from the site (see Surface Water Criteria List, page 11), assign a score of 300 and do not evaluate Factor 13. List the Primary Sensitive Environments:

13. SECONDARY SENSITIVE ENVIRONMENTS:

A. For Secondary Sensitive Environments on surface water bodies with flows of 100 cfs or less, assign scores as follows, and do not evaluate part B of this factor:

Flow	Dilution Weight (PA Table 4)	Environment Type and Value (PA Tables 5 and 6)	Total
cfs	x	=	
cfs	x	=	
cfs	x	=	
cfs	x	=	
cfs	x	=	

Sum =

B. If NO Secondary Sensitive Environments are located on surface water bodies with flows of 100 cfs or less, assign a score of 10.

T =

0	
0	
0	
0	
0	
0	
0	

17, 30

16, 20, 2

NOV 06 1990

Site Name:
Date:

PA TABLE 5: SURFACE WATER AND AIR SENSITIVE ENVIRONMENTS VALUES

<i>Sensitive Environment</i>	<i>Assigned Value</i>
Critical habitat for Federally designated endangered or threatened species	100
Marine Sanctuary	
National Park	
Designated Federal Wilderness Area	
Ecologically important areas identified under the Coastal Zone Wilderness Act	
Sensitive Areas identified under the National Estuary Program or Near Coastal Water Program of the Clean Water Act	
Critical Areas identified under the Clean Lakes Program of the Clean Water Act (subareas in lakes or entire small lakes)	
National Monument	
National Seashore Recreation Area	
National Lakeshore Recreation Area	
Habitat known to be used by Federally designated or proposed endangered or threatened species	75
National Preserve	
National or State Wildlife Refuge	
Unit of Coastal Barrier Resources System	
Federal land designated for the protection of natural ecosystems	
Administratively Proposed Federal Wilderness Area	
Spawning areas critical for the maintenance of fish/shellfish species within a river system, bay or estuary	
Migratory pathways and feeding areas critical for the maintenance of anadromous fish species in a river system	
Terrestrial areas utilized by large or dense aggregations of vertebrate animals (semi-aquatic foragers) for breeding	
National river reach designated as recreational	
Habitat known to be used by State designated endangered or threatened species	50
Habitat known to be used by a species under review as to its Federal endangered or threatened status	
Coastal Barrier (partially developed)	
Federally designated Scenic or Wild River	
State land designated for wildlife or game management	25
State designated Scenic or Wild River	
State designated Natural Area	
Particular areas, relatively small in size, important to maintenance of unique biotic communities	
State designated areas for the protection/maintenance of aquatic life under the Clean Water Act	5
Wetlands	See PA Table 6 (Surface Water Pathway) or PA Table 9 (Air Pathway)

PA TABLE 6: SURFACE WATER
WETLANDS FRONTAGE VALUES

<i>Total Length of Wetlands</i>	<i>Assigned Value</i>
Less than 0.1 mile	0
0.1 to 1 mile	25
Greater than 1 to 2 miles	50
Greater than 2 to 3 miles	75
Greater than 3 to 4 miles	100
Greater than 4 to 8 miles	150
Greater than 8 to 12 miles	250
Greater than 12 to 16 miles	350
Greater than 16 to 20 miles	450
Greater than 20 miles	500

Tables 5 and 6
not used
for 1990

NOV 06 1990

SURFACE WATER PATHWAY (concluded)
WASTE CHARACTERISTICS, THREAT, AND PATHWAY SCORE SUMMARY

WASTE CHARACTERISTICS	A	B
	Suspected Release <small>(100 = 32)</small>	No Suspected Release <small>(100, 32, or 100)</small>
14. A. If you have identified ANY Primary Targets for surface water (pages 12, 14, or 15), assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.		
B. If you have NOT identified any Primary Targets for surface water, assign the waste characteristics score calculated on page 4.	32 <small>(100, 32, or 100)</small>	
WC =	32	

SURFACE WATER PATHWAY THREAT SCORES

Threat	Likelihood of Release (LR) Score (from page 12)	Targets (T) Score	Pathway Waste Characteristics (WC) Score (determined above)	Threat Score $LR \times T \times WC$ / 82,500
Drinking Water	550	21	32	<small>Subject to a maximum of 100</small> 4.48
Human Food Chain	550	12	32	<small>Subject to a maximum of 100</small> 2.56
Environmental	550	0	32	<small>Subject to a maximum of 100</small> 0

SURFACE WATER PATHWAY SCORE
 (Drinking Water Threat + Human Food Chain Threat + Environmental Threat)

<small>Subject to a maximum of 100</small> 7.04

Site Name: Commonwealth Edison
 Date: 10/20/01

This chart provides guidelines to assist you in hypothesizing the presence of a resident population. It is expected that not all of this information will be available during the PA. Also, these criteria are not all-inclusive; list any other criteria you use to hypothesize resident populations. This chart will record your professional judgment in evaluating this factor.

Use the resident population section to guide you through evaluation of some site and source conditions that will help identify targets likely to be exposed to hazardous substances. You may use this section of the chart more than once, depending on the number of nearby people you feel may be considered part of a resident population. Record the responses for the resident population target that you feel has the highest probability of being exposed to hazardous substances.

Check the boxes to indicate a "yes", "no", or "unknown" answer to each question.

SOIL EXPOSURE PATHWAY				
SUSPECTED CONTAMINATION	RESIDENT POPULATION			
	Y :	N :	U :	
Surficial contamination is assumed.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there residences, schools, or day care facilities on or within 200 feet of areas of suspected contamination?
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are residences, schools, or day care facilities located on adjacent land previously owned or leased by the site owner/operator?
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there an overland migration route that might spread hazardous substances near residences, schools, or day care facilities?
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are there any reports of adverse health effects from onsite or adjacent residents or students, exclusive of apparent drinking water or air contamination problems?
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does any offsite property warrant sampling?
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other criteria? _____
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RESIDENT POPULATION IDENTIFIED?

Summarize the rationale for resident population (attach an additional page if necessary):

The Commonwealth Edison plant is bordered by Lake Michigan on the north, south, and partially East sides. Railroad tracks border the plant on the West side. There are no residences or schools within 200 feet of the suspected contamination, therefore there is no resident population identified.

reference 6

NOV 03 1990

SOIL EXPOSURE PATHWAY SCORESHEET

Date:

Pathway Characteristics

Do any people live on or within 200 ft of areas of suspected contamination? Yes ☐ No ☒

Do any people attend school or day care on or within 200 ft of areas of suspected contamination? Yes ☐ No ☒

Is the facility active? Yes ☒ No ☐ If yes, estimate the number of workers: >1000

LIKELIHOOD OF EXPOSURE

1. SUSPECTED CONTAMINATION: Surficial contamination is assumed.
A score of 550 is assigned.

LE =

A

B

Suspected Contamination No Suspected Contamination

References

PAH

550

RESIDENT POPULATION THREAT TARGETS

2. RESIDENT POPULATION: Determine the number of people occupying residences or attending school or day care on or within 200 feet of areas of suspected contamination (see Soil Exposure Pathway Criteria List, page 18).

_____ people x 10 =

3. RESIDENT INDIVIDUAL: If you have identified any Resident Population (Factor 2), assign a score of 50; otherwise, assign a score of 0.

4. WORKERS: Assign a score from the following table based on the total number of workers at the facility and nearby facilities with suspected contamination:

Number of Workers	Score
0	0
1 to 100	5
101 to 1,000	10
>1,000	(15)

5. TERRESTRIAL SENSITIVE ENVIRONMENTS: Assign a value from PA Table 7 for each terrestrial sensitive environment that is located on an area of suspected contamination:

Terrestrial Sensitive Environment Type	Value
_____	_____
_____	_____
_____	_____

Sum =

6. RESOURCES: A score of 5 is assigned.

T =

WASTE CHARACTERISTICS

7. Assign the waste characteristics score calculated on page 4.

WC =

RESIDENT POPULATION THREAT SCORE:

LE x T x WC

82,500

NEARBY POPULATION THREAT SCORE:

Assign a score of 2

SOIL EXPOSURE PATHWAY SCORE:

Resident Population Threat + Nearby Population Threat

(Subject to a maximum of 100)

4.27

2

(Subject to a maximum of 100)

6.27

6.20

15

17.20

DRAFT

NOV 06 1990

PA TABLE 7: SOIL EXPOSURE PATHWAY
TERRESTRIAL SENSITIVE ENVIRONMENT VALUES

<i>Terrestrial Sensitive Environment</i>	<i>Assigned Value</i>
Terrestrial critical habitat for Federally designated endangered or threatened species	100
National Park	
Designated Federal Wilderness Area	
National Monument	
Terrestrial habitat known to be used by Federally designated or proposed threatened or endangered species	75
National Preserve (terrestrial)	
National or State terrestrial Wildlife Refuge	
Federal land designated for protection of natural ecosystems	
Administratively proposed Federal Wilderness Area	
Terrestrial areas utilized by large or dense aggregations of animals (vertebrate species) for breeding	
Terrestrial habitat used by State designated endangered or threatened species	50
Terrestrial habitat used by species under review for Federally designated endangered or threatened status	
State lands designated for wildlife or game management	25
State designated Natural Areas	
Particular areas, relatively small in size, important to maintenance of unique biotic communities	

Table 7 is not
used for
scoring

AIR PATHWAY CRITERIA LIST

Site Name: Commander's 17th Police

Date: 10/15/91

This chart provides guidelines to assist you in hypothesizing the presence of a suspected release. It is expected that not all of this information will be available during the PA. Also, these criteria are not all-inclusive; list any other criteria you use to hypothesize a suspected release. This chart will record your professional judgment in evaluating this factor.

The "Suspected Release" section of the chart guides you through evaluation of some conditions to help hypothesize whether a release from the site is likely. For the Air Pathway, if a release is suspected, "Primary Targets" are any residents, workers, students, or sensitive environments within 1/2 mile of the site.

Check the boxes to indicate a "yes", "no", or "unknown" answer to each question. If you check the "Suspected Release" box as "yes", make sure that you assign a Likelihood of Release value of 550 for the pathway.

AIR PATHWAY			
SUSPECTED RELEASE			PRIMARY TARGETS
Y •	N •	U •	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Have odors been reported?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Has a release of hazardous substances to the air been directly observed?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are there any reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there any circumstantial evidence of an air release?
<input type="checkbox"/>	<input checked="" type="checkbox"/>		Other criteria? _____
<input checked="" type="checkbox"/>	<input type="checkbox"/>		SUSPECTED RELEASE?
			<i>If you suspect a release to air, evaluate all populations and sensitive environments within 1/2 mile (including those onsite) as Primary Targets.</i>

Summarize the rationale for suspected release (attach an additional page if necessary):

Since the fly ash is not contained in any manner, it is likely that ash from the open piles can get caught up in the air and blown around.

reference 6

NOV 06 1990

AIR PATHWAY SCORESHEET

Pathway Characteristics

Do you suspect a release (see Air Pathway Criteria List, page 21)?

Yes ☒ No ☐

Distance to the nearest individual:

200 ft

LIKELIHOOD OF RELEASE

	A Suspected Release	B No Suspected Release	References
1. SUSPECTED RELEASE: If you suspect a release to air (see page 21), assign a score of 550, and use only column A for this pathway.	550		6
2. NO SUSPECTED RELEASE: If you do not suspect a release to air, assign a score of 500, and use only column B for this pathway.			
LR =	550		

TARGETS

3. PRIMARY TARGET POPULATION: Determine the number of people subject to exposure from a release of hazardous substances through the air (see Air Pathway Criteria List, page 21). <u>2800</u> people x 10 =	28000		5
4. SECONDARY TARGET POPULATION: Determine the number of people within the 4-mile target distance limit, and assign the total population score from PA Table 8.	258		20
5. NEAREST INDIVIDUAL: If you have identified any Primary Targets for the air pathway, assign a score of 50; otherwise, assign the highest Nearest Individual score from PA Table 8.	50		5
6. PRIMARY SENSITIVE ENVIRONMENTS: Sum the sensitive environment values (PA Table 5) and wetland acreage values (PA Table 9) for environments subject to exposure from air hazardous substances (see Air Pathway Criteria List, page 21).	0		100
7. SECONDARY SENSITIVE ENVIRONMENTS: Use PA Table 10 to determine the score for secondary sensitive environments.	0		
8. RESOURCES: A score of 5 is assigned.	5	5	
T =	28313		

Sensitive Environment Type	Value

WASTE CHARACTERISTICS

9. A. If you have identified any Primary Targets for the air pathway, assign the waste characteristics score calculated on page 4, or a score of 32, whichever is GREATER; do not evaluate part B of this factor.	32		
B. If you have NOT identified any Primary Targets for the air pathway, assign the waste characteristics score calculated on page 4.	0		
WC =	32		

AIR PATHWAY SCORE:

$$\frac{LR \times T \times WC}{82,500}$$

Subject to a maximum of 1000

100

110

PA TABLE 8: VALUES FOR SECONDARY AIR TARGET POPULATIONS

[illegible]

**PA TABLE 9: AIR PATHWAY VALUES
FOR WETLAND AREA**

Number of Acres	Value
Less than 1 acre	0
1 to 50 acres	25
Greater than 50 to 100 acres	75
Greater than 100 to 150 acres	125
Greater than 150 to 200 acres	175
Greater than 200 to 300 acres	250
Greater than 300 to 400 acres	350
Greater than 400 to 500 acres	450
Greater than 500 acres	500

**PA TABLE 10: DISTANCE WEIGHTS AND CALCULATIONS
FOR AIR PATHWAY SECONDARY SENSITIVE ENVIRONMENTS**

Distance	Distance Weight	Sensitive Environment Type and Value from CA Table 5 of 9)	Product
Onsite	0.10	X	
		X	
		X	
0.1/4 mi	0.025	X	
		X	
		X	
1/4-1/2mi	0.0054	X	
		X	
		X	
Total Environments Score =			

To the General
 of the
 Court

SITE SCORE CALCULATION

	S	S ²
GROUND WATER PATHWAY SCORE (S _{gw}):	1.07	1.1449
SURFACE WATER PATHWAY SCORE (S _{sw}):	7.04	49.5616
SOIL EXPOSURE PATHWAY SCORE (S _{so}):	6.27	39.3129
AIR PATHWAY SCORE (S _a):	100	10,000
SITE SCORE: $\sqrt{\frac{S_{gw}^2 + S_{sw}^2 + S_{so}^2 + S_a^2}{4}}$ =		50.2

RECOMMENDATION

PIT recommends that the community be advised to proceed on to the succeeding site inspection with medium priority.

SUMMARY

	YES	NO
1. Is there a high possibility of a threat to nearby drinking water wells by migration of hazardous substances in ground water? A. If yes, identify the wells recommended for sampling during the SI. _____ B. If yes, how many people are served by these threatened wells? _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Are any of the following suspected to have been exposed to hazardous substances through surface water migration from the site? A. Drinking water intake B. Fishery C. Sensitive environment: wetland, critical habitat, others D. If yes, identify the targets recommended for sampling during the SI. _____ _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
3. Do people reside or attend school or day care on or within 200 ft of any area of suspected contamination?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Are there public health concerns at this site that are not addressed by PA scoring considerations? If yes, explain: _____ _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>

1	Blahunka, Steve. May 30, 91. Whitling Filtration Plant; contacted by Phay Tierney of Ecology and Environment.
2	Kanatenosa, Tony. June 24, 91. Hammond Water Works, contacted by Chris Zien of Ecology and Environment.
3	Buczek, Ken. May 13, 91. V.P. produced Gairy Hobart Water Co., contacted by Jermelle Marcereau of Ecology and Environment.
4	Clock, Douglas and Harrison D., editors. 1980. Governor's Water Resource Study Commission, State of Indiana. The Indiana Water Resource Availability, Uses, and Needs.

	DESCRIPTION OF REFERENCE
5	Commonwealth of Indiana Industrial Relations, July 12, 91. Contacted by Kathy Bell of Ecology and Environment.
6	Ecology and Environment Ride-by-Leg Book, June 4, 91. Attendants: Julie Visser and Sally Limes.
7	Indiana Department of Conservation. 1952. Investigation of Indiana's Lakes and Streams. Indiana University Department of Zoology.
8	Indiana State Board of Health. February 27, 86. Generator annual report. Thomas E. Hemminger, Director of Water Quality.

9	<p>Zeit, Rich. June 12, 91. Gary-Hobart Water Corp. contracted by Chris Zien of Ecology and Environment.</p>
10	<p>Mitchell, M. and Perry J., McGrain J. June 1951. Indiana's Water Resources</p>
11	<p>Modrowski, Art. July 2, 91. East Chicago Water Department. Contacted by Chris Zien of Ecology and Environment.</p>
12	<p>Musgrave, Barb. June 26, 91. People's Water Company, Hammond Indiana. Contacted by Chris Zien of Ecology and Environment.</p>

	DESCRIPTION OF REFERENCE
13	<p>Oregon, Winda. June 24, 91.</p> <p>Hammond Water Works, contacted by Chris Zien of Ecology and Environment.</p>
14	<p>Regional Planning Commission</p> <p>Lake and Porter Co. 1970 Water Resources Inventory.</p>
15	<p>Seydel, Kalee. April 8, 91. Hammond Water Filtration Department.</p> <p>contacted by Todd Ramalg.</p>
16	<p>Torrey, S. 1978. Coal Ash Utilization: Fly Ash, Bottom Ash, and Slag, Weyerhaeuser Corp.</p>

DESCRIPTION OF REFERENCE

- | | |
|----|---|
| 17 | U.S. Department of the Interior
November 6, 1997: Fish and Wildlife
Service, Endangered Species List for
region V Town cities, Minnesota. |
| 18 | U.S. Department of Interior
Geological Survey of Lake Co. 1953.
Bulletin 31, Plate 3. |
| 19 | US EPA, July 20, 88, Potential
Hazardous Waste Site Preliminary
Assessment for the Commonwealth
Edison Site, U.S. EPA ID: DW0016
3104507. Prepared by Patrick S.
Austin. |
| 20 | US G.S. Topographic maps: Lake
Columet, 16-1811 Quadangle, 1965,
photo revised 1973, Whiting Trail
Quadangle 1968, photo revised 1980,
Jackson Park Quadangle, 1963,
photo revised 1972. 7.5 minute series |

21

Verschueren, K. 1983. Handbook of Environmental Data on Organic Chemicals, 2nd ed., Van Nostrand Reinhold.

22

Wickenshaw, Doug. May 14, 91.
Dunes State Park contacted
by Jim Broderick of Ecology
and Environment.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Commonwealth EdisonPAGE 1 OF 4U.S. EPA ID: IND016364507 TDD: F05-9104-055PAN: FIN0739PADATE: 6-4-91TIME: 1200DIRECTION OF
PHOTOGRAPH:SWEATHER
CONDITIONS:Sunny~75°F

PHOTOGRAPHED BY:

VisserSAMPLE ID
(if applicable):N/ADESCRIPTION: Commonwealth Edison taken from a
park across lake michiganDATE: 6-4-91TIME: 1205DIRECTION OF
PHOTOGRAPH:NWWEATHER
CONDITIONS:Sunny~75°F

PHOTOGRAPHED BY:

VisserSAMPLE ID
(if applicable):N/ADESCRIPTION: Entrance gate with guard

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Commonwealth Edison

PAGE 2 OF 4

U.S. EPA ID: IND016364507 TDD: F05-9104-055

PAN: FIN0739PA

DATE: 6-4-91

TIME: 1235

DIRECTION OF
PHOTOGRAPH:

N

WEATHER
CONDITIONS:

Sunny

~75°F

PHOTOGRAPHED BY:

Visser

SAMPLE ID
(if applicable):

N/A



DESCRIPTION:

side street & railroad tracks
on-site inside fence.

DATE: 6-4-91

TIME: 1240

DIRECTION OF
PHOTOGRAPH:

N

WEATHER
CONDITIONS:

Sunny

~75°F

PHOTOGRAPHED BY:

Visser

SAMPLE ID
(if applicable):

N/A



DESCRIPTION:

piles of coal or fly ash on-site

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME:

Commonwealth Edison

PAGE 3 OF 4

U.S. EPA ID:

IND016364507

TDD:

F05-9104-055

PAN:

FIN0739PA



DATE:

6-4-91

TIME:

1245

DIRECTION OF PHOTOGRAPH:

N/NE

PHOTOGRAPHED BY:

Visser

WEATHER CONDITIONS:

Sunny ~75°F

SAMPLE ID (if applicable):

N/A

DESCRIPTION:

South/southeast corner of site

FIELD PHOTOGRAPH LOG SHEET

SITE NAME: Commonwealth Edison

PAGE 4 OF 4

U.S. EPA ID: IND016364507 TDD: F05-9104-055

PAN: FIN0739PA

DATE: 6-4-91

TIME: 1259

DIRECTION OF
PHOTOGRAPH:

N

WEATHER
CONDITIONS:

Sunny

~75°F

PHOTOGRAPHED BY:

Nisser

SAMPLE ID
(if applicable):

N/A



DESCRIPTION: on-site tracks. Employee parking
area in the distance. Northwest end of
the site

SDMS US EPA Region V

Imagery Insert Form

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